ASX Release

6 June 2025

High grade gold in rock chip and soil samples extend exploration targets in Southwest Tatau Island, PNG

Highlights

- Highly anomalous gold results from hand auger soil sampling extends gold in soil anomalies (+0.1 ppm gold) at southwest Tatau Island to 7.3 km^2 – comparable to the 6.9 km^2 area at Simberi Island that host the Simberi deposits.
- High grade in gold rock chip samples from the Mt Siro - Seraror area returned values up to **22.5 ppm Au** and **12.3 ppm Au** including 22.5, 2.0, 1.98 and 1.83 ppm Au within the soil anomaly and located between 150 m and 450 m north of previous historical trenching and drilling.
- High grade gold in soil samples from the Mt Tiro area returned values up to **2.39 ppm Au** and **2.0 ppm Au** including 2.39, 0.86 and 0.57 ppm Au located between 250 m and 500 m southwest or southeast of previous historical trenching and drilling.
- The Mt Tiro +0.1 ppm gold in soil anomaly area now measures approximately 1.8 km x 0.8 km while the Mt Siro – Seraror gold in soil anomaly area now measures approximately 1.4 km x 0.7 km.
- The presence of widespread alteration and percent sulphides recorded in southwest Tatau Island supports the presence of a large hydrothermal system and the exploration potential of the area.

St Barbara Limited ("**St Barbara**" or the "**Company**") (ASX: SBM) is pleased to report on the latest successful regional surface sampling and drilling program at southwest Tatau Island, Papua New Guinea (EL609). Highly anomalous gold results have been returned from the hand auger soil sampling program that extends the southwest Tatau Island +0.1 ppm gold in soil anomalies to an area covering 7.3 km^2. In addition, high grade gold in rock chip samples were returned from within the soil anomalies.

St Barbara Managing Director and CEO Andrew Strelein said:

"This first substantial regional exploration campaign at Tatau Island, the neighbouring island to Simberi, has rewarded us with multiple highly anomalous rock chip and soil samples that extend the anomalous areas around Mt Tiro and at Mt Siro – Seraror in particular. After focusing our attention in FY24 on the successful Simberi resource development and infill conversion program the team are now broadening their efforts to the regional program and following up opportunities identified in previous campaigns."

"The Company believes that the presence of widespread alteration and elevated sulphides within the southwest Tatau Island supports the interpreted presence of a large hydrothermal system and demonstrates the exploration potential of the area. The fine tuning of our interpretation of the very large Simberi epithermal system is invaluable to the development of the thinking on exploration across EL609 and EL2462."

Southwest Tatau Island Program

A regional exploration work program of surface sampling and RC drilling was completed over a portion of southwest Tatau Island between September 2024 and April 2025. The program included hand auger soil sampling, rock chip sampling, trenching and reconnaissance RC drilling.

The soil and rock chip sampling was conducted over an area of southwest Tatau Island measuring 6 km by 3.5 km:

- 300 regional hand auger soil samples were collected on a staggered grid at 200 m by 200 m spacing utilising a manual hand auger to provide a continuous soil profile down to a depth of between 1 m and 2.2 m depth (average 1.8 m). Soil profiles were documented and a sample taken for analysis from the upper portion of the 'C' horizon when intersected or the lower 'B' horizon when not reached, and
- 204 rock chip samples were collected from available outcrop, sub-crop or proximal float typically located in creeks, cliffs and access tracks.

Results for gold and copper analyses from the soil and rock chip sampling are reported in this release.

The current epithermal gold deposits located within the Simberi Mine Lease 136, eastern Simberi Island, are all located within a +0.1 ppm gold in soil geochemical anomaly. The +0.1 ppm gold in soil anomalies on the neighbouring eastern Simberi Island that host the Simberi gold resources within ML136, covers an area of approximately 6.9 km^2 and has an approximate 5 km by 2.5 km footprint. In comparison, the +0.1 ppm Au gold in soil anomalies on Tatau Island cover an area of 10.8 km^2, 7.3 km^2 of which is located in southwest Tatau Island. The southwest Tatau Island +0.1 ppm gold in soil anomalies have an approximate 7 km by 3.5 km footprint. The presence of widespread alteration and percent sulphides recorded in southwest Tatau Island supports the presence of a large hydrothermal system and the exploration potential of the area. Significant areas of anomalous gold in soil and rock chip sampling remain to be tested with trenching and drilling as shown in Figures 6 and 7.

The gold assay results from the recent regional hand auger soil sampling program confirms and extends several +0.1 ppm gold in soil anomalies at southwest Tatau Island. Two main +0.1 ppm gold in soil anomalies located on southwest Tatau Island include the Mt Tiro area (measuring approximately 1.8 km x 0.8 km) and the Mt Siro - Seraror area (measuring approximately 1.4 km x 0.7 km).

The location of gold assay results from the recent soil and rock chip sampling program in the Mt Tiro area are shown in Figure 6 of this release. Several high gold-in-soil assay results (2.39 and 0.57 ppm Au) are located up to 500 m further southwest than the main areas of previous trenching and drilling. A 0.86 ppm Au in soil result was returned 250 m south of previous trenching and 500 m southeast of previous drilling.

The location of gold assay results from the recent soil and rock chip sampling program in the Mt Siro - Seraror area are shown in Figure 7 of this release. Several high gold-in-rock chip assay results (22.5, 2.0, 1.98 and 1.83 ppm Au) are located between 150 m and 450 m further north of previous historical trenching and drilling.

Trenching and reconnaissance RC drill holes were also completed during the campaign. A total of 22 trenches (TATTR289 to TATTR310) were completed covering 1,483 metres for 482 channel samples. The continuous, horizontal channel samples are collected on regular 2 m to 5 m intervals along exposure in excavator access tracks and creeks. A total of 17 RC drill holes (TTRC007 to TTRC023) were completed for 1,020 metres. Results for the channel sampling and RC drilling are expected in Q1 September FY26.

Proposed further work includes: 1) follow-up 200 m by 200 m extension to the soil sampling program to close out the plus +0.1 ppm Au soil anomalies and 100 m x 100 m infill soil sampling of selected +0.1 ppm Au soil anomalies; 2) upon receipt of the assay results for recent trench sampling and reconnaissance RC drilling, further trenching and subsequent RC drilling will be completed targeting the higher grade gold results.

The Company continues to work with the state nominee of PNG, Kumul Mineral Holdings Limited, towards an exploration joint venture agreement over EL609 and EL2462[1].

[1] Refer to ASX announcement on 9 December 2024 titled *"Simberi ML early renewal progress and Kumul MOU"*

Explanatory Notes

Figure 1 below shows the location of highly anomalous gold (+0.1 ppm Au) and copper (+250 and +450 ppm Cu) in soil samples across the Tabar Island Group (TIG) and the St Barbara group tenements ML136, EL609 and EL2462. The current epithermal gold deposits located within the Simberi Mine Lease 136, eastern Simberi Island, are all located within a +0.1 ppm gold in soil geochemical anomaly. The contour map was generated from all historical and recent soil sampling (n= 29,975). Outside ML136, extensive gold in soil anomalies (+0.1 ppm Au) are present on Tatau Island with the strongest anomaly located in the southwest. A broad copper anomaly (+250 ppm Cu) is present in the central part of Tatau Island and contains several localised higher grade (+450 ppm Cu) soil anomalies. Several smaller gold (+0.1 ppm Au) and copper (+450 ppm Cu) soil anomalies occur on Big Tabar Island.

The presence of less gold and copper soil anomalies on Big Tabar Island are interpreted to be the result of reduced surface sampling as well as the presence of overlying barren volcanics that shallowly cover altered volcanics. Big Tabar Island is considered to be prospective for covered epithermal gold and copper-gold porphyry systems.

Figure 2 shows the location of the Simberi ML136 resource block model with grades +0.6 g/t Au and the sulphide pit designs with the gold in soil (+0.1 ppm Au) contour overlain. All the deposits, apart from a portion of Pigiput deposit (at depth) are generally located well within the gold in soil (+0.1 ppm Au) anomaly.

Figure 3 shows the location of gold assay results from the recent grid based regional hand auger soil sampling and rock chip sampling program. The results are overlain on a thematic map of all gold assay results from soil sampling (both new and historical combined). Coloured thematic base maps were produced in Micromine software using an Inverse distance weighted interpolation to produce a gridded colour map of soil assay values. Computed Grid cells are 40m x 40m in size with a maximum search radius of 175m and minimum samples n=1, maximum n=150.

Figure 4 shows the location of copper assay results from the recent grid based regional hand auger soil sampling and rock chip sampling program. The results are overlain on a thematic map of new (this release) and all past historical copper assay results from soil sampling. The copper thematic map was created using the same dataset and interpolation parameters as for gold.

The copper assay results from the recent regional hand auger soil sampling program indicates that +250 ppm Cu in soil anomaly measuring 6 km long by 4.5 km wide covers most of the central part of Tatau Island. Previous soil sampling defined several copper in soil anomalies (+450 ppm Cu) associated with recognised porphyry copper-gold targets such as Madurdur (1.1 km x 0.8 km), Daramba (1.4 km x 0.5 km), Talik North (0.6 km x 0.4 km) and Kupo (0.9 km x 0.5 km).

Figure 5 shows the location of gold assay results from the recent grid based regional hand auger soil sampling and rock chip sampling on southwest Tatau Island. The results are overlain on a thematic map of all gold assay results from soil sampling (new and historical).

Figure 6 shows the location of gold assay results from the recent soil and rock chip sampling program in the Mt Tiro area. Several high gold in soil assay results (**2.39** and **0.57 ppm Au**) are located up to 500 m further southwest than the main areas of previous trenching and drilling. A **0.86 ppm Au** in soil result was returned 250 m south of previous trenching and 500 m southeast of previous drilling. Follow-up infill and extension soil sampling, trenching and RC drilling are required in this area.

Figure 7 shows the location of gold assay results from the recent soil and rock chip sampling program in the Mt Siro – Seraror area. Several high gold in rock chip assay results (**22.5, 2.0, 1.98** and **1.83 ppm Au**) are located between 250 m and 500 m further north of previous historical trenching and drilling. Follow-up infill and extension soil sampling, trenching and RC drilling are required in this area.

Figure 1. Gold and copper soil geochemistry, Tabar Islands (ML136, EL609 and EL2462).

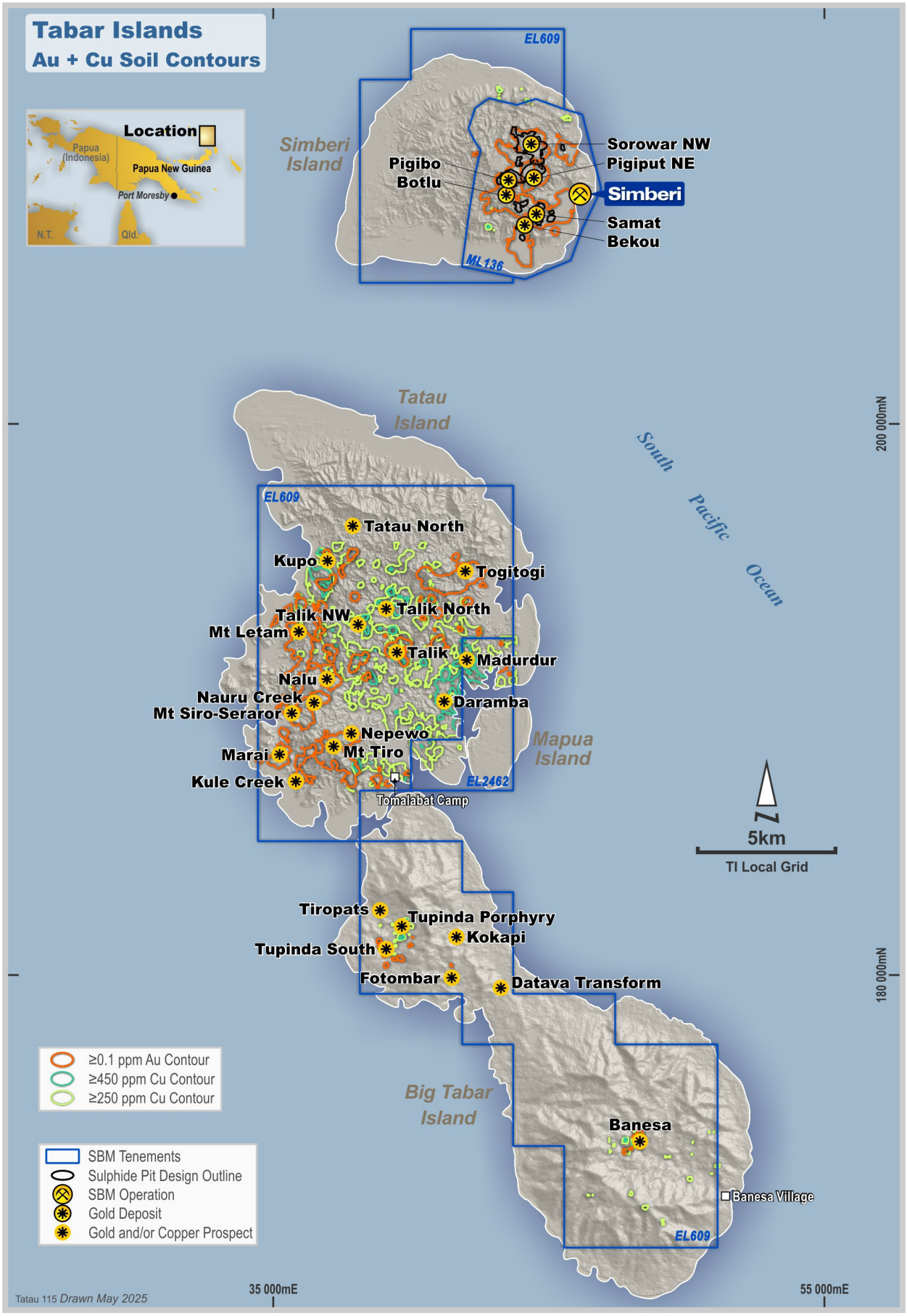


Figure 2. Gold in soil anomaly (+0.1 ppm Au) overlain on resource block model (≥ 0.6 g/t Au) and sulphide pit optimisation, Simberi Island (ML136).

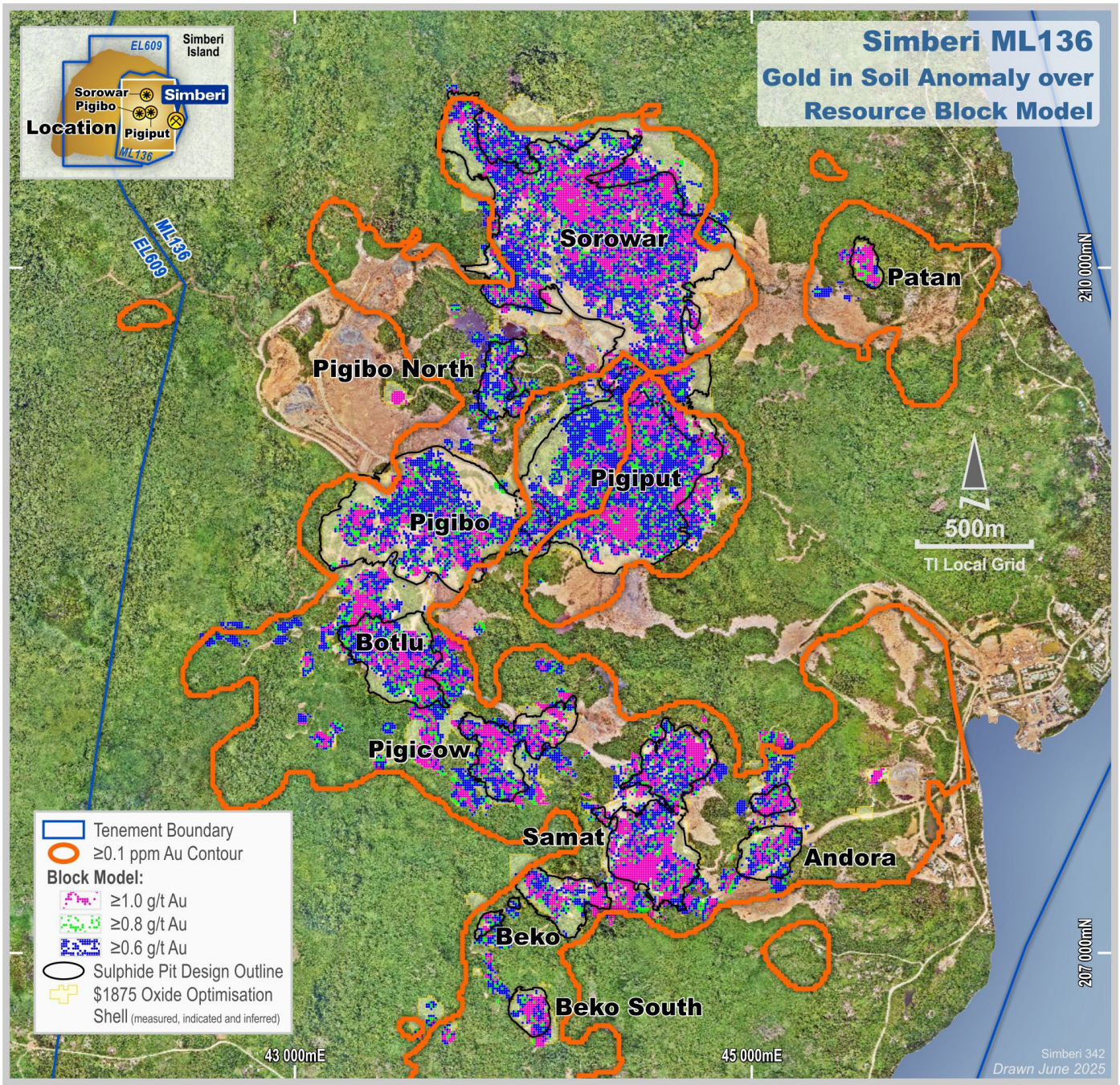


Figure 3. Gold in recent hand auger soil and rock chip samples overlain on gold in soil geochemistry, Tatau Island (EL609 and EL2462).

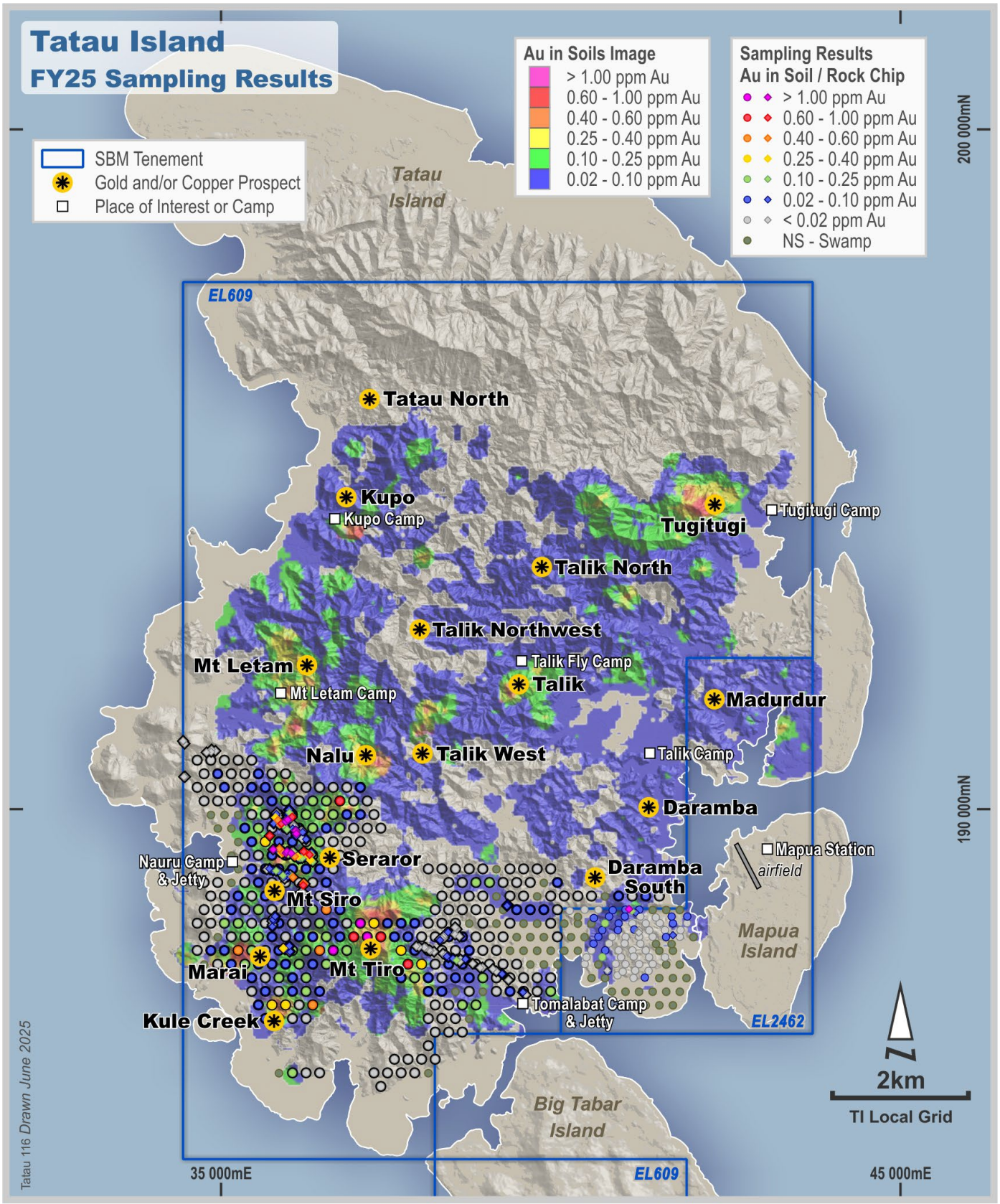


Figure 4. Copper in recent hand auger soil and rock chip samples overlain on copper in soil geochemistry, Tatau Island (EL609 and EL2462).

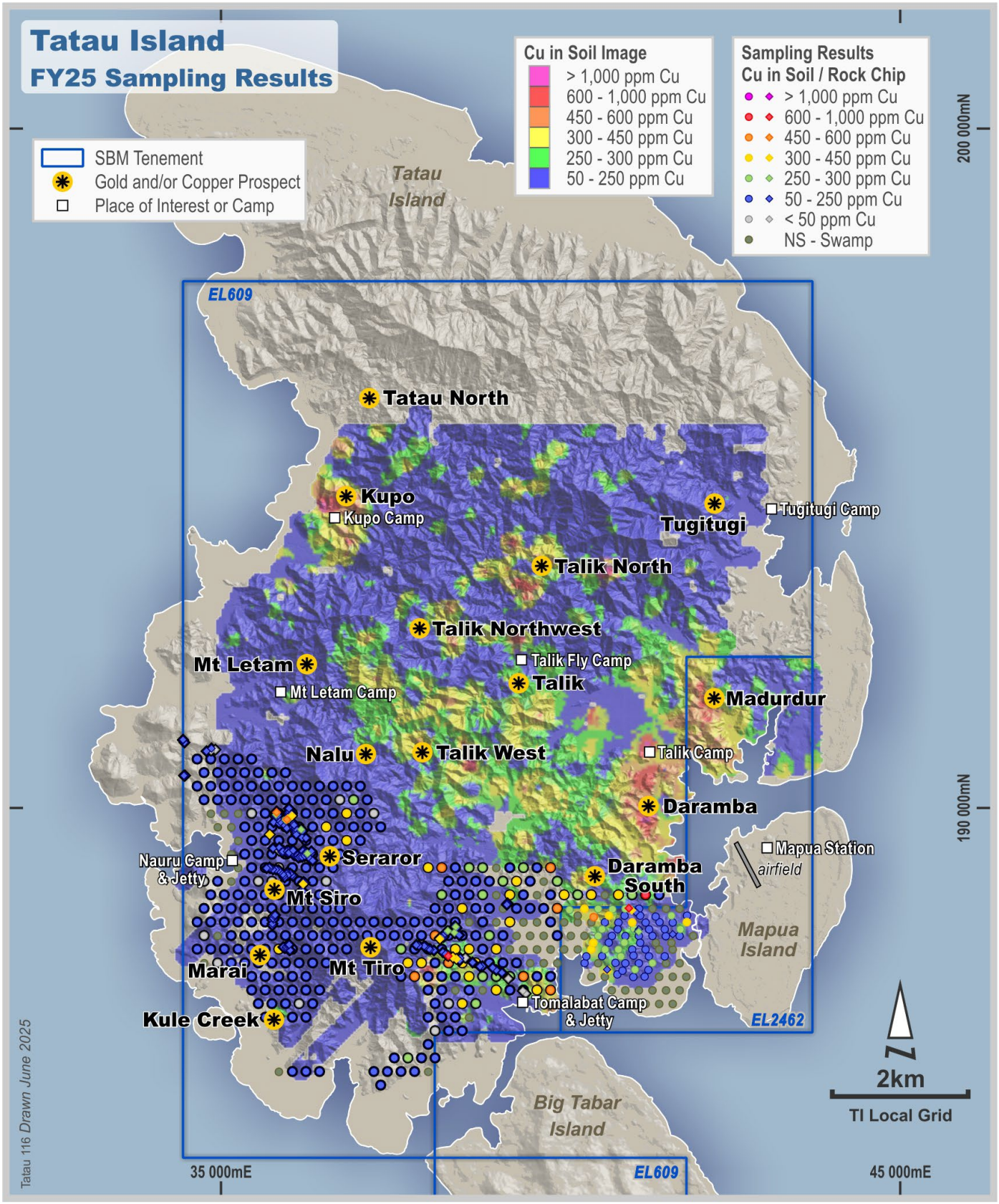


Figure 5. Gold in recent hand auger soil and rock chip samples overlain on gold in soil geochemistry, Southwest Tatau Island, Papua New Guinea.

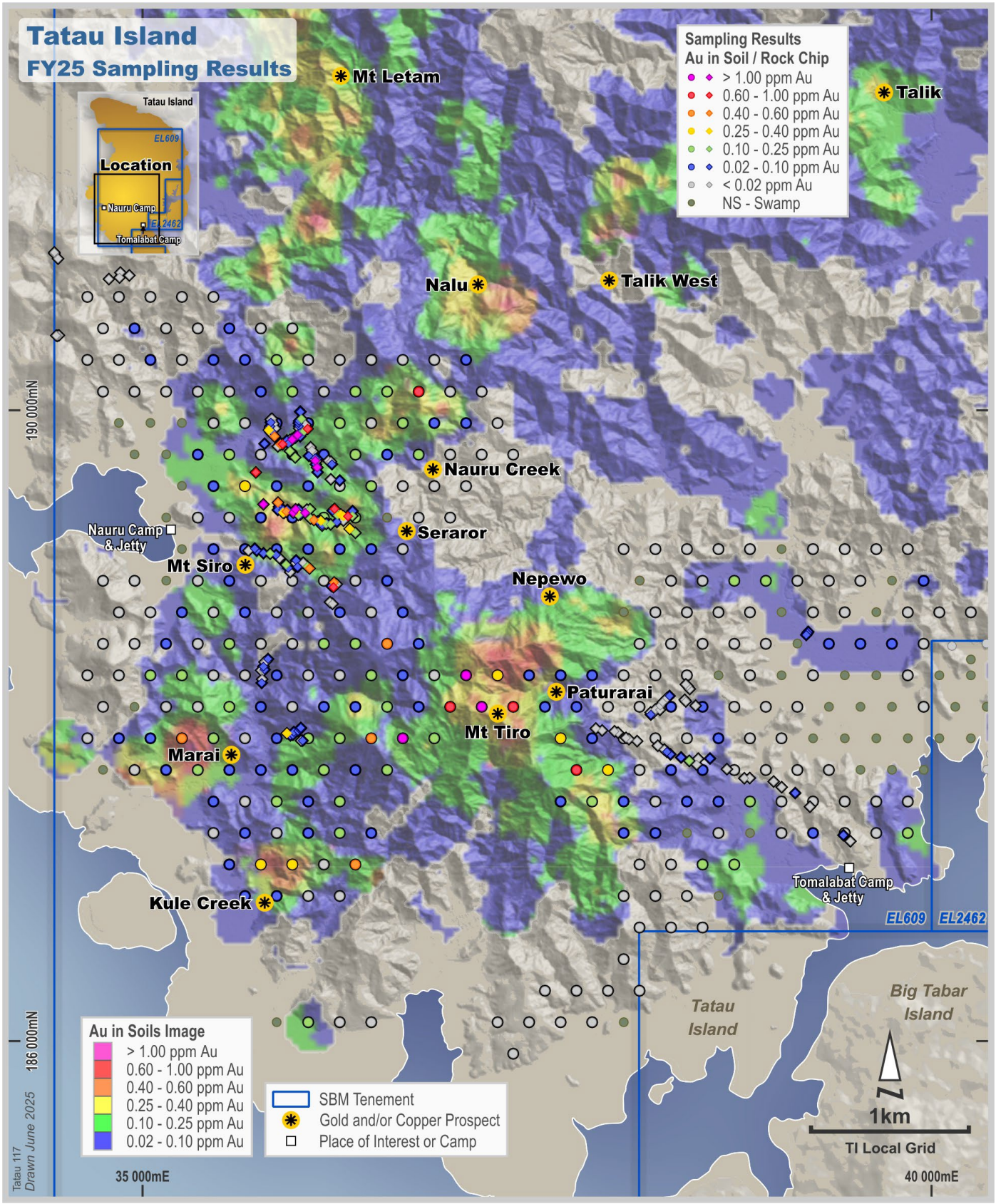


Figure 6. Gold in recent hand auger soil and rock chip samples overlain on gold in soil geochemistry, Mt Tiro target, Southwest Tatau Island, Papua New Guinea.

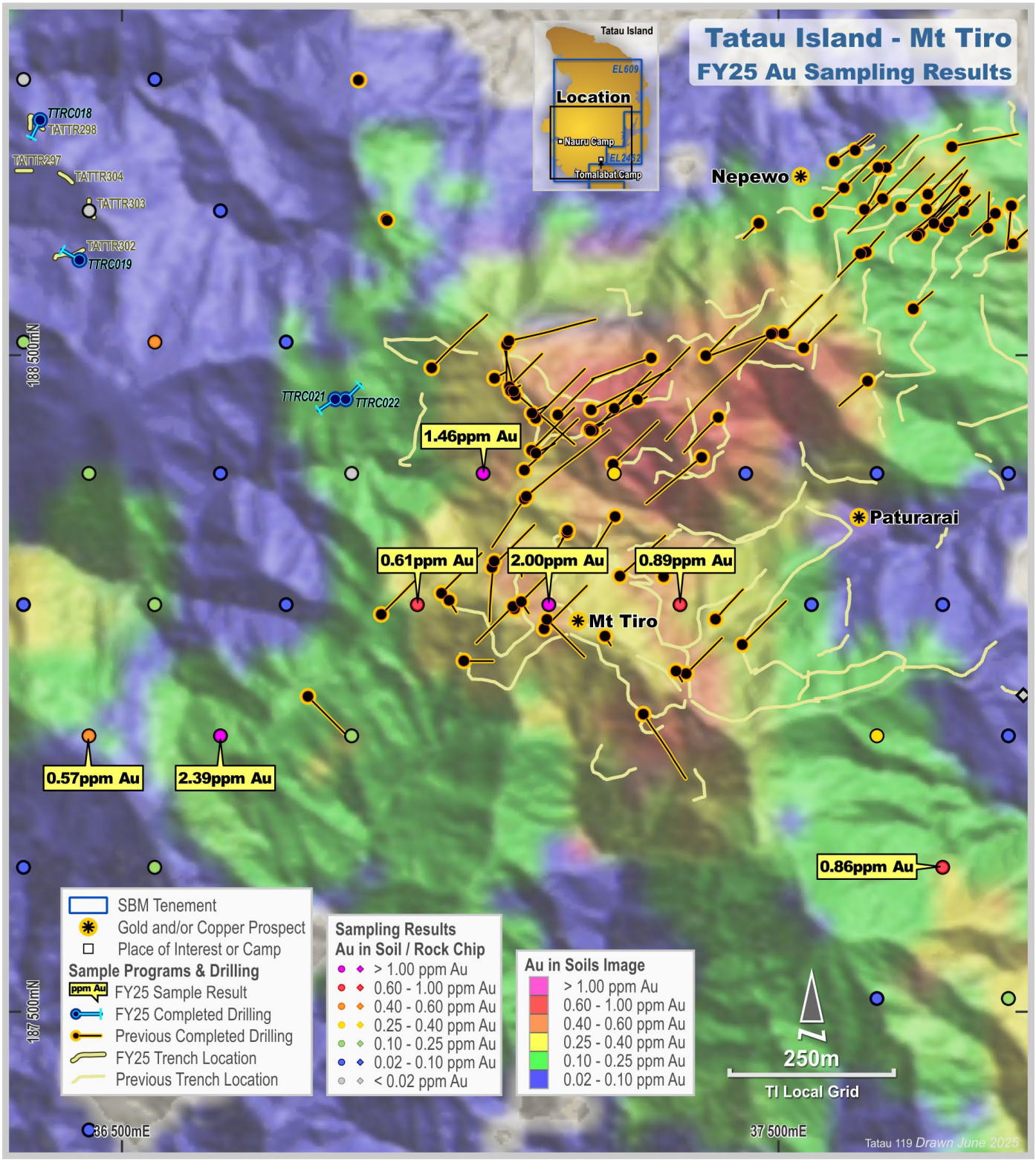
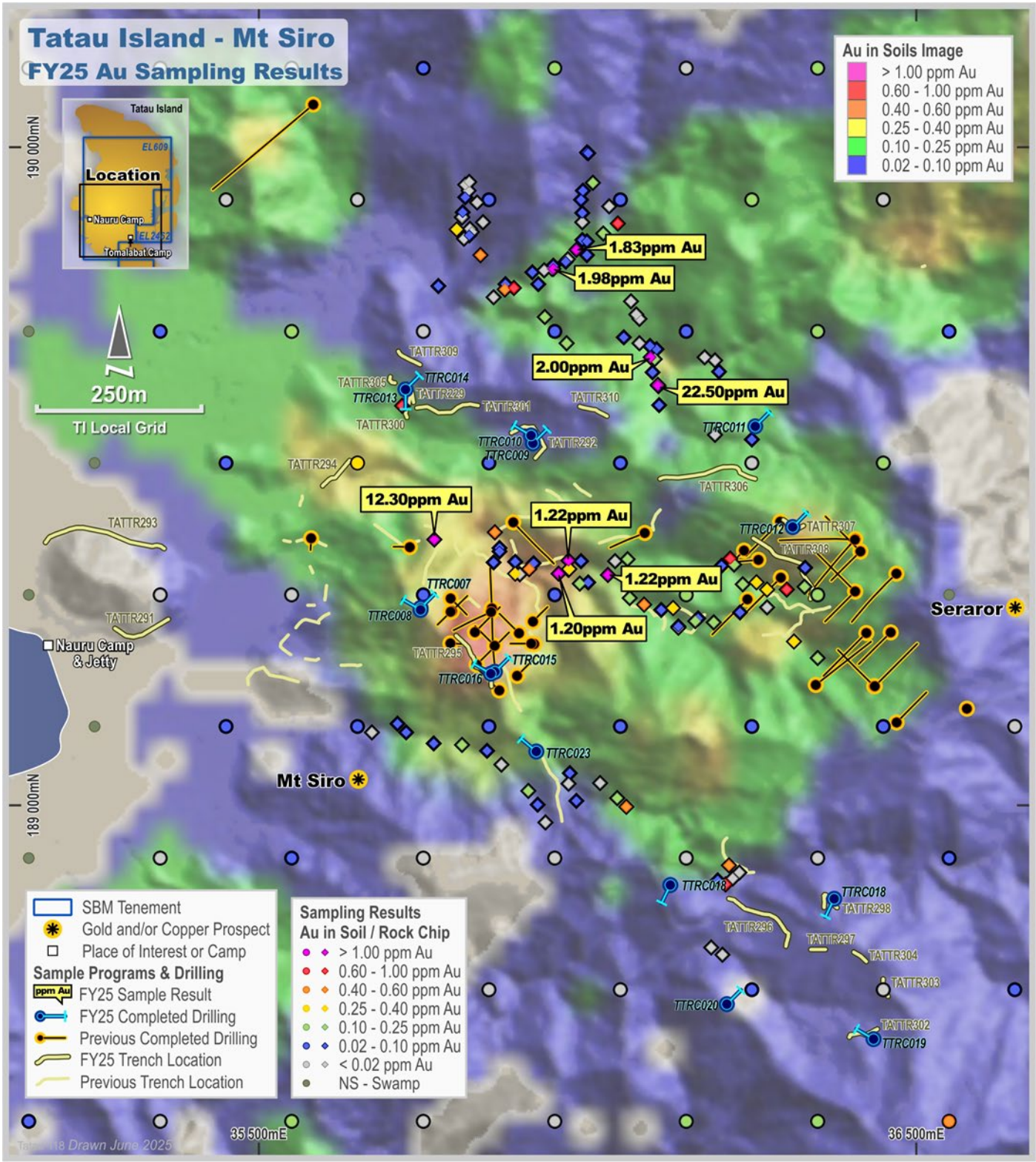


Figure 7. Gold in recent hand auger soil and rock chip samples overlain on gold in soil geochemistry, Mt Siro - Seraror target, Southwest Tatau Island, Papua New Guinea.



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Competent Persons Statement

The information in this report that relates to Exploration Results is based on information compiled by Dr Roger Mustard, who is a Member of The Australasian Institute of Mining and Metallurgy. Dr Mustard is a full-time employee of St Barbara and has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Dr Mustard consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Table 1: Hand auger soil assay results, Southwest Tatau Island (EL609), Papua New Guinea.

Sample ID	Type	North (m)	East (m)	RL (m)	Lithology	Au ppb	Cu ppm
515303	Auger	185,920	37,350	26.5	Soil	2	88
515305	Auger	186,120	37,850	4.4	Soil	2	56.4
515306	Auger	186,120	37,650	4.2	Soil	3	54.4
515307	Auger	186,120	37,450	39.3	Soil	9	108
515308	Auger	186,120	37,250	27.9	Soil	<1	73.2
515309	Auger	186,120	36,450	8.5	Soil	3	114
515310	Auger	186,120	36,250	13.6	Soil	2	150
515311	Auger	186,120	36,050	9.7	Soil	127	179
515313	Auger	186,320	38,150	39.6	Soil	2	53.1
515314	Auger	186,320	37,950	12.6	Soil	1	78.6
515315	Auger	186,320	37,750	35.3	Soil	8	261
515316	Auger	186,320	37,550	30.6	Soil	3	169
515322	Auger	186,520	38,050	58.8	Soil	1	86.3
515332	Auger	186,720	38,550	10.2	Soil	12	130
515333	Auger	186,720	38,350	58.2	Soil	1	136
515334	Auger	186,720	38,150	80.9	Soil	<1	39.7
515346	Auger	186,920	38,450	34.4	Soil	<1	59
515347	Auger	186,920	38,250	93.8	Soil	2	91.2
515348	Auger	186,920	38,050	54.6	Soil	13	195
515358	Auger	186,920	36,250	18.2	Soil	14	76.6
515359	Auger	186,920	36,050	40.3	Soil	6	104
515360	Auger	186,920	35,850	24.8	Soil	39	105
515361	Auger	186,920	35,650	5.7	Soil	54	98.4
515362	Auger	187,120	38,750	16.0	Soil	100	281
515363	Auger	187,120	38,550	13.4	Soil	136	300
515364	Auger	187,120	38,350	83.0	Soil	<1	22.2
515365	Auger	187,120	38,150	57.8	Soil	2	86.6
515374	Auger	187,120	36,350	93.8	Soil	445	124
515375	Auger	187,120	36,150	57.7	Soil	11	46.9
515376	Auger	187,120	35,950	41.0	Soil	298	65.8
515377	Auger	187,120	35,750	19.5	Soil	305	186
515378	Auger	187,120	35,550	15.0	Soil	21	184
515379	Auger	187,320	39,850	2.0	Soil	124	529
515380	Auger	187,320	39,650	7.1	Soil	8	304
515381	Auger	187,320	39,450	32.7	Soil	5	212
515382	Auger	187,320	39,250	6.7	Soil	48	198
515383	Auger	187,320	39,050	5.3	Soil	11	321
515385	Auger	187,320	38,650	9.7	Soil	4	222
515387	Auger	187,320	38,250	37.8	Soil	21	197
515388	Auger	187,320	38,050	75.8	Soil	20	153
515396	Auger	187,320	36,450	95.4	Soil	33	106
515397	Auger	187,320	36,250	84.6	Soil	124	135
515398	Auger	187,320	36,050	78.6	Soil	34	85.8
515399	Auger	187,320	35,850	53.7	Soil	3	124
515401	Auger	187,320	35,650	28.0	Soil	29	165
515402	Auger	187,320	35,450	23.5	Soil	1	94.8
515403	Auger	187,520	39,850	10.4	Soil	2	239
515404	Auger	187,520	39,650	41.3	Soil	15	178
515405	Auger	187,520	39,450	25.1	Soil	15	520
515406	Auger	187,520	39,250	22.6	Soil	8	255
515407	Auger	187,520	39,050	18.7	Soil	12	292
515408	Auger	187,520	38,850	8.8	Soil	180	260
515409	Auger	187,520	38,650	29.3	Soil	27	391
515410	Auger	187,520	38,450	27.8	Soil	48	204

Table 1 cont: Hand auger soil assay results, Southwest Tatau Island (EL609), Papua New Guinea.

Sample ID	Type	North (m)	East (m)	RL (m)	Lithology	Au ppb	Cu ppm
515411	Auger	187,520	38,250	46.2	Andesite	5	157
515412	Auger	187,520	38,050	86.2	Andesite	20	223
515413	Auger	187,520	37,850	130.2	Andesite	149	463
515414	Auger	187,520	37,650	194.5	Andesite	81	187
515421	Auger	187,520	36,250	99.5	Soil	130	130
515422	Auger	187,520	36,050	76.9	Soil	77	117
515423	Auger	187,520	35,850	17.6	Soil	195	98.7
515424	Auger	187,520	35,650	19.4	Soil	9	149
515425	Auger	187,520	35,450	30.5	Soil	29	102
515429	Auger	187,720	39,350	22.9	Soil	5	235
515430	Auger	187,720	39,150	6.5	Soil	2	218
515431	Auger	187,720	38,950	15.6	Soil	5	212
515432	Auger	187,720	38,750	23.0	Soil	6	333
515433	Auger	187,720	38,550	32.3	Soil	30	363
515434	Auger	187,720	38,350	43.6	Andesite	58	455
515435	Auger	187,720	38,150	39.3	Andesite	17	221
515436	Auger	187,720	37,950	86.3	Andesite	301	365
515437	**Auger**	**187,720**	**37,750**	**121.6**	**Andesite**	**861**	**341**
515443	Auger	187,720	36,550	221.8	Soil	220	165
515444	Auger	187,720	36,350	150.6	Soil	25	99
515445	Auger	187,720	36,150	97.3	Soil	109	170
515446	Auger	187,720	35,950	29.2	Soil	71	141
515447	Auger	187,720	35,750	11.8	Soil	69	127
515448	Auger	187,720	35,550	11.1	Soil	85	119
515449	Auger	187,720	35,350	7.3	Soil	103	123
515450	Auger	187,720	35,150	22.4	Soil	36	109
515452	Auger	187,720	34,950	34.5	Soil	6	32.6
515458	Auger	187,920	39,050	4.3	Soil	11	392
515459	Auger	187,920	38,850	30.7	Soil	3	162
515460	Auger	187,920	38,650	21.5	Soil	24	344
515461	Auger	187,920	38,450	54.9	Soil	16	419
515462	Auger	187,920	38,250	57.4	Andesite	5	98.9
515463	Auger	187,920	38,050	76.5	Andesite	7	196
515464	Auger	187,920	37,850	114.1	Andesite	23	225
515465	Auger	187,920	37,650	168.5	Andesite	292	253
515469	Auger	187,920	36,850	218.3	Soil	111	153
515470	**Auger**	**187,920**	**36,650**	**242.6**	**Soil**	**2390**	**169**
515471	**Auger**	**187,920**	**36,450**	**238.2**	**Soil**	**572**	**237**
515472	Auger	187,920	36,250	171.5	Soil	135	113
515473	Auger	187,920	36,050	63.1	Soil	101	123
515474	Auger	187,920	35,850	34.0	Soil	91	301
515475	Auger	187,920	35,650	55.4	Soil	4	83
515476	Auger	187,920	35,450	35.4	Soil	248	190
515477	Auger	187,920	35,250	79.3	Soil	499	114
515478	Auger	187,920	35,050	26.8	Soil	92	73.6
515479	Auger	187,920	34,850	18.0	Soil	76	65.8
515480	Auger	187,920	34,650	14.4	Soil	5	78.6
515481	Auger	188,120	39,950	2.2	Soil	7	180
515485	Auger	188,120	39,150	9.9	Soil	10	219
515486	Auger	188,120	38,950	6.3	Soil	15	274
515487	Auger	188,120	38,750	18.1	Soil	5	175
515488	Auger	188,120	38,550	13.4	Soil	59	187
515489	Auger	188,120	38,350	40.4	Soil	25	231
515490	Auger	188,120	38,150	46.5	Soil	10	485

Table 1 cont: Hand auger soil assay results, Southwest Tatau Island (EL609), Papua New Guinea.

Sample ID	Type	North (m)	East (m)	RL (m)	Lithology	Au ppb	Cu ppm
515491	Auger	188,120	37,950	97.6	Andesite	11	217
515492	Auger	188,120	37,750	134.1	Andesite	22	83.5
515493	Auger	188,120	37,550	134.6	Andesite	38	135
515494	**Auger**	**188,120**	**37,350**	**214.8**	**Andesite**	**886**	**147**
515495	**Auger**	**188,120**	**37,150**	**263.7**	**Andesite**	**2000**	**145**
515496	**Auger**	**188,120**	**36,950**	**293.6**	**Andesite**	**606**	**170**
515497	Auger	188,120	36,750	211.8	Soil	22	100
515498	Auger	188,120	36,550	140.9	Soil	149	123
515499	Auger	188,120	36,350	174.2	Soil	99	135
515501	Auger	188,120	36,150	122.1	Soil	70	127
515502	Auger	188,120	35,950	108.8	Soil	18	167
515503	Auger	188,120	35,750	27.2	Soil	90	144
515504	Auger	188,120	35,550	76.8	Soil	207	120
515505	Auger	188,120	35,350	94.4	Soil	5	189
515506	Auger	188,120	35,150	29.5	Soil	10	152
515508	Auger	188,120	34,750	16.6	Soil	<1	12.2
515511	Auger	188,320	39,850	19.9	Soil	5	234
515514	Auger	188,320	39,250	4.5	Andesite	5	377
515516	Auger	188,320	38,850	32.2	Andesite	8	188
515518	Auger	188,320	38,450	50.8	Andesite	5	223
515519	Auger	188,320	38,250	58.0	Soil	11	231
515520	Auger	188,320	38,050	62.7	Andesite	4	148
515521	Auger	188,320	37,850	80.0	Soil	34	61.6
515522	Auger	188,320	37,650	144.7	Soil	62	114
515523	Auger	188,320	37,450	181.9	Soil	76	143
515524	Auger	188,320	37,250	230.3	Soil	309	138
515525	**Auger**	**188,320**	**37,050**	**253.1**	**Soil**	**1460**	**145**
515526	Auger	188,320	36,850	192.7	Soil	18	73.5
515527	Auger	188,320	36,650	162.2	Soil	42	99.1
515528	Auger	188,320	36,450	199.9	Soil	179	139
515529	Auger	188,320	36,250	136.3	Soil	3	140
515530	Auger	188,320	36,050	82.2	Soil	13	194
515531	Auger	188,320	35,850	52.6	Soil	45	135
515532	Auger	188,320	35,650	33.1	Soil	13	95.6
515533	Auger	188,320	35,450	52.1	Soil	11	181
515534	Auger	188,320	35,250	47.0	Soil	217	121
515535	Auger	188,320	35,050	27.5	Soil	165	172
515536	Auger	188,320	34,850	87.7	Soil	3	144
515537	Auger	188,320	34,650	28.3	Soil	1	129
515538	Auger	188,520	39,950	25.2	Andesite	6	475
515539	Auger	188,520	39,750	2.6	Andesite	90	188
515540	Auger	188,520	39,550	2.9	Andesite	51	209
515541	Auger	188,520	39,350	4.0	Andesite	46	195
515543	Auger	188,520	38,950	6.4	Andesite	9	84.5
515544	Auger	188,520	38,750	40.9	Andesite	1	242
515545	Auger	188,520	38,550	56.2	Andesite	13	346
515546	Auger	188,520	38,350	41.6	Soil	3	208
515547	Auger	188,520	38,150	41.1	Soil	7	142
515555	Auger	188,520	36,750	247.9	Soil	77	132
515556	Auger	188,520	36,550	246.3	Soil	485	184
515557	Auger	188,520	36,350	193.5	Soil	108	101
515558	Auger	188,520	36,150	104.2	Soil	225	169
515559	Auger	188,520	35,950	127.7	Soil	5	142
515560	Auger	188,520	35,750	92.1	Soil	4	140

Table 1 cont: Hand auger soil assay results, Southwest Tatau Island (EL609), Papua New Guinea.

Sample ID	Type	North (m)	East (m)	RL (m)	Lithology	Au ppb	Cu ppm
515561	Auger	188,520	35,550	73.2	Soil	185	130
515562	Auger	188,520	35,350	37.1	Soil	6	131
515563	Auger	188,520	35,150	6.8	Soil	26	68.1
515564	Auger	188,520	34,950	49.3	Soil	<1	73.7
515565	Auger	188,520	34,750	57.8	Soil	<1	77.8
515566	Auger	188,720	41,450	20.1	Soil	18	212
515567	Auger	188,720	41,250	42.0	Soil	29	834
515568	Auger	188,720	41,050	9.1	Soil	15	285
515569	Auger	188,720	40,850	62.1	Soil	35	323
515571	Auger	188,720	40,450	38.6	Soil	8	357
515572	Auger	188,720	40,250	47.2	Soil	16	256
515573	Auger	188,720	40,050	26.9	Soil	4	338
515574	Auger	188,720	39,850	5.0	Soil	3	242
515576	Auger	188,720	39,450	12.0	Soil	3	235
515577	Auger	188,720	39,250	19.8	Soil	2	325
515579	Auger	188,720	38,850	19.0	Soil	8	284
515580	Auger	188,720	38,650	39.9	Soil	2	245
515581	Auger	188,720	38,450	22.2	Soil	4	216
515582	Auger	188,720	38,250	71.2	Soil	9	263
515590	Auger	188,720	36,650	172.1	Soil	22	155
515591	Auger	188,720	36,450	201.8	Soil	4	132
515592	Auger	188,720	36,250	162.2	Soil	47	137
515593	Auger	188,720	36,050	152.1	Soil	3	86.7
515594	Auger	188,720	35,850	88.8	Soil	8	197
515595	Auger	188,720	35,650	46.2	Soil	52	149
515596	Auger	188,720	35,450	28.0	Soil	7	108
515597	Auger	188,720	35,250	3.8	Soil	61	92.9
515598	Auger	188,720	35,050	19.0	Soil	<1	213
515599	Auger	188,720	34,850	23.4	Soil	<1	111
515601	Auger	188,920	39,950	47.3	Soil	29	278
515603	Auger	188,920	39,550	11.4	Soil	4	228
515604	Auger	188,920	39,350	54.1	Soil	3	367
515605	Auger	188,920	39,150	9.8	Soil	3	256
515606	Auger	188,920	38,950	8.9	Soil	112	160
515607	Auger	188,920	38,750	11.4	Soil	170	170
515608	Auger	188,920	38,550	21.8	Soil	4	170
515609	Auger	188,920	38,350	39.0	Soil	2	226
515618	Auger	188,920	36,550	168.3	Soil	32	43.3
515619	Auger	188,920	36,350	161.8	Soil	14	242
515620	Auger	188,920	36,150	140.6	Soil	5	126
515621	Auger	188,920	35,950	115.7	Soil	2	201
515622	Auger	188,920	35,750	100.3	Soil	<1	43.5
515623	Auger	188,920	35,550	33.6	Soil	29	40.7
515624	Auger	188,920	35,350	4.8	Soil	<1	161
515626	Auger	188,920	34,950	3.1	Soil	2	85.1
515627	Auger	188,920	34,750	86.0	Soil	2	44
515628	Auger	189,120	39,850	14.6	Soil	9	506
515629	Auger	189,120	39,650	31.8	Soil	6	227
515630	Auger	189,120	39,450	19.4	Soil	6	299
515631	Auger	189,120	39,250	29.8	Soil	<1	185
515633	Auger	189,120	38,850	36.7	Soil	7	262
515634	Auger	189,120	38,650	28.8	Soil	2	264
515635	Auger	189,120	38,450	63.8	Soil	15	181
515636	Auger	189,120	38,250	55.9	Soil	3	531

Table 1 cont: Hand auger soil assay results, Southwest Tatau Island (EL609), Papua New Guinea.

Sample ID	Type	North (m)	East (m)	RL (m)	Lithology	Au ppb	Cu ppm
515637	Auger	189,120	38,050	72.4	Soil	8	433
515644	Auger	189,120	36,650	191.0	Soil	11	115
515645	Auger	189,120	36,450	201.9	Soil	66	161
515646	Auger	189,120	36,250	175.4	Soil	43	153
515647	Auger	189,120	36,050	134.4	Soil	22	230
515648	Auger	189,120	35,850	62.9	Soil	27	29.5
515649	Auger	189,120	35,650	10.5	Soil	25	141
515650	Auger	189,120	35,450	3.9	Soil	72	106
515656	Auger	189,320	36,950	140.9	Soil	4	152
515657	Auger	189,320	36,750	150.0	Soil	13	209
515659	Auger	189,320	36,350	141.6	Soil	123	169
515660	Auger	189,320	36,150	89.9	Soil	141	278
515661	Auger	189,320	35,950	42.2	Soil	84	142
515662	Auger	189,320	35,750	67.9	Soil	86	202
515663	Auger	189,320	35,550	3.4	Soil	8	124
515664	Auger	189,320	35,350	26.3	Soil	8	144
515668	Auger	189,520	37,050	144.4	Soil	2	70.5
515669	Auger	189,520	36,850	157.5	Soil	1	351
515670	Auger	189,520	36,650	144.2	Soil	1	67.3
515671	Auger	189,520	36,450	151.3	Soil	164	103
515672	Auger	189,520	36,250	88.4	Soil	17	147
515673	Auger	189,520	36,050	69.8	Soil	68	163
515674	Auger	189,520	35,850	16.5	Soil	47	124
515675	Auger	189,520	35,650	14.4	Soil	389	155
515676	Auger	189,520	35,450	8.2	Soil	68	178
515678	Auger	189,720	37,350	81.3	Soil	4	131
515679	Auger	189,720	37,150	143.5	Soil	7	157
515680	Auger	189,720	36,950	109.3	Soil	10	214
515681	Auger	189,720	36,750	102.5	Soil	125	237
515682	Auger	189,720	36,550	87.3	Soil	21	338
515683	Auger	189,720	36,350	88.0	Andesite	213	104
515684	Auger	189,720	36,150	60.8	Andesite	81	217
515685	Auger	189,720	35,950	16.8	Soil	95	145
515686	Auger	189,720	35,750	29.9	Soil	4	164
515687	Auger	189,720	35,550	6.5	Soil	137	149
515688	Auger	189,720	35,350	4.2	Soil	73	158
515691	Auger	189,920	37,250	136.3	Soil	5	14
515692	Auger	189,920	37,050	111.9	Soil	25	155
515693	Auger	189,920	36,850	157.3	Soil	37	354
515694	Auger	189,920	36,650	140.3	Soil	105	149
515695	Auger	189,920	36,450	97.0	Soil	15	194
515696	Auger	189,920	36,250	117.9	Soil	184	181
515697	Auger	189,920	36,050	53.0	Soil	33	247
515698	Auger	189,920	35,850	42.2	Soil	46	148
515699	Auger	189,920	35,650	13.4	Soil	12	232
515701	Auger	189,920	35,450	21.7	Soil	8	43.5
515705	Auger	190,120	37,150	165.5	Soil	16	142
515706	Auger	190,120	36,950	138.8	Soil	18	255
515707	**Auger**	**190,120**	**36,750**	**172.3**	**Soil**	**877**	**43.4**
515708	Auger	190,120	36,550	121.6	Soil	138	198
515709	Auger	190,120	36,350	125.3	Soil	144	207
515710	Auger	190,120	36,150	102.2	Soil	11	198
515711	Auger	190,120	35,950	100.5	Soil	110	131
515712	Auger	190,120	35,750	68.6	Soil	82	168

Table 1 cont: Hand auger soil assay results, Southwest Tatau Island (EL609), Papua New Guinea.

Sample ID	Type	North (m)	East (m)	RL (m)	Lithology	Au ppb	Cu ppm
515713	Auger	190,120	35,550	29.4	Soil	12	236
515714	Auger	190,120	35,350	20.8	Soil	11	187
515715	Auger	190,120	35,150	3.2	Soil	7	107
515716	Auger	190,120	34,950	30.9	Soil	2	152
515717	Auger	190,120	34,750	17.3	Soil	1	167
515718	Auger	190,320	37,050	156.1	Soil	88	121
515719	Auger	190,320	36,850	172.4	Soil	4	204
515720	Auger	190,320	36,650	175.1	Soil	18	179
515721	Auger	190,320	36,450	206.7	Soil	3	128
515722	Auger	190,320	36,250	128.4	Soil	5	119
515723	Auger	190,320	36,050	106.4	Soil	5	196
515724	Auger	190,320	35,850	103.4	Soil	190	158
515725	Auger	190,320	35,650	87.2	Soil	27	231
515726	Auger	190,320	35,450	30.3	Soil	57	177
515727	Auger	190,320	35,250	31.9	Soil	10	163
515728	Auger	190,320	35,050	12.5	Soil	20	194
515729	Auger	190,320	34,850	36.7	Soil	2	179
515730	Auger	190,320	34,650	67.7	Soil	<1	117
515736	Auger	190,520	35,950	81.3	Soil	7	188
515737	Auger	190,520	35,750	42.0	Soil	2	109
515738	Auger	190,520	35,550	58.9	Soil	74	153
515739	Auger	190,520	35,350	41.3	Soil	11	196
515740	Auger	190,520	35,150	71.9	Soil	<1	79.9
515741	Auger	190,520	34,950	29.4	Soil	38	172
515742	Auger	190,520	34,750	49.4	Soil	2	179
515750	Auger	190,720	35,450	110.5	Soil	<1	65.8
515752	Auger	190,720	35,250	108.8	Soil	<1	106
515753	Auger	190,720	35,050	59.0	Soil	2	216
515754	Auger	190,720	34,850	41.5	Soil	1	169
515755	Auger	190,720	34,650	41.3	Soil	2	177

Table 2: Rock chip assay results, Southwest Tatau Island (EL609), Papua New Guinea.

Sample ID	Type	North (m)	East (m)	RL (m)	Colour	Oxidation	Lithology	Alteration	Au ppb	Cu ppm
510453	Outcrop	187,611	39,051	22.5	GN-GRY	TR	Andesite	phyllic over propylitic	<1	172
510454	Outcrop	187,669	38,849	14.4	GN-GRY	TR	Andesite	phyllic over propylitic	4	172
510455	Outcrop	187,791	38,522	32.4	GN-GRY	TR	Andesite	phyllic over propylitic	11	224
510456	Outcrop	187,819	38,345	33.7	OR-W	OX	Andesite	moderate phyllic	24	868
510457	Outcrop	187,874	38,265	51.6	BRN	OX	Breccia	moderate phyllic	3	73.4
510458	Outcrop	187,906	36,005	44.3	GRY-W	TR	Andesite	silicified, 1% pyrite	4	75.5
510459	Outcrop	187,906	36,014	52.5	GRY-GN	TR	Andesite	phyllic, 2 % sulphide	21	123
510460	Outcrop	187,938	35,938	34.9	GRY-GN	TR	Andesite	propylitic, 2 % pyrite	22	120
510461	Outcrop	187,952	35,916	42.1	GRY-GN	TR	Andesite	propylitic, 3-5 % pyrite	265	77.7
510462	Outcrop	187,942	35,952	42.1	GRY-GN	TR	Andesite	propylitic, 3-5 % pyrite	35	142
510463	Outcrop	187,960	35,960	38.5	GRY-GN	TR	Andesite	propylitic, 3-5 % pyrite	69	186
510464	Outcrop	189,391	35,866	22.6	GRY-W	TR	Andesite	silicified, 5 % pyrite	43	89.2
510465	Outcrop	189,386	35,866	23.5	GRY-W	TR	Andesite	silicified, 8-10 % pyrite	59	21.6
510466	Outcrop	189,369	35,857	31.6	GRY-W	TR	Andesite	moderate argillic	22	37.3
510467	Outcrop	189,370	35,890	23.6	GRY	TR	Andesite	phyllic, 3% pyrite	21	30.1
510468	Outcrop	189,359	35,911	23.3	WHT	TR	Andesite	moderate phyllic	21	18.7
510469	Outcrop	187,968	35,985	46.3	GRY-GN	TR	Andesite	phyllic over propylitic	36	195
510470	Outcrop	187,978	35,996	46.6	GRY-GN	TR	Andesite	phyllic over propylitic	58	148
510471	Outcrop	187,983	36,002	49.4	GRY-GN	TR	Andesite	phyllic over propylitic	36	189
510472	Outcrop	187,987	36,003	50.1	GRY-GN	TR	Andesite	phyllic over propylitic	33	235
510473	Outcrop	188,352	35,752	41.3	BRN	OX	Andesite	limonitic	<1	72.4
510474	Outcrop	188,272	35,755	25.0	BRN	OX	Andesite	limonitic	78	90.6
510475	Outcrop	188,296	35,759	26.7	BRN	OX	Andesite	Propylitic, < 1 % pyrite	13	73.9
510476	Outcrop	188,350	35,766	38.0	BRN	OX	Andesite	phyllic	18	33.5
510477	Outcrop	188,356	35,773	42.0	BRN	OX	Andesite	phyllic	71	120
510478	Outcrop	188,375	35,766	40.8	GRY-GN	TR	Andesite	phyllic over propylitic	23	81.8
510479	Outcrop	188,375	35,766	40.8	GRY-GN	TR	Andesite	phyllic over propylitic	15	156
510480	Outcrop	188,404	35,774	45.2	WHT	TR	Andesite	strong argillic	8	30.9
510481	Outcrop	188,408	35,783	49.8	WHT	TR	Andesite	strong argillic	15	54.6
510482	Outcrop	188,423	35,795	56.5	GRY-W	TR	Andesite	strong argillic	25	65
510483	Outcrop	187,268	39,486	43.9	OR-BN	OX	Andesite	phyllic	4	3.2
510484	Outcrop	187,306	39,442	38.7	GRY	TR	Andesite	phyllic	36	36.3
510485	Outcrop	187,487	39,230	39.3	GRY	TR	Andesite	phyllic	5	30.3
510486	Outcrop	187,573	39,137	33.8	OR-BN	OX	Andesite	moderate argillic	47	118
510487	Outcrop	187,647	39,000	25.0	GRY	TR	Andesite	phyllic	9	221
510488	Outcrop	187,667	38,814	13.4	GRY	TR	Andesite	phyllic	5	131
510489	Outcrop	187,725	38,704	16.6	GRY	TR	Andesite	phyllic	4	149
510490	Outcrop	187,793	38,596	22.5	BRN	OX	Andesite/Breccia	limonitic	45	46.2
510491	Outcrop	187,754	38,512	35.3	GRY-BN	OX	Andesite	limonitic, propylitic	13	174
510492	Outcrop	187,777	38,465	39.0	GRY-BN	OX	Andesite	limonitic, propylitic	127	366
510493	Outcrop	187,800	38,413	28.8	GRY-BN	OX	Andesite	limonitic, phyllic	50	369
510494	Outcrop	187,835	38,323	37.5	GRY-BN	OX	Andesite	limonitic, propylitic	31	225
510495	Outcrop	187,849	38,307	43.1	PPL-BN	OX	Breccia	limonitic, argillic	13	79.8
510496	Outcrop	187,902	38,135	70.6	PPL-BN	OX	Breccia	limonitic, argillic	9	112
510497	Outcrop	187,915	38,083	66.4	PPL-BN	OX	Breccia	limonitic, argillic	5	66.5
510498	Outcrop	187,923	38,064	71.5	PPL-BN	OX	Breccia	limonitic, argillic	8	185
510499	Outcrop	187,956	38,013	87.9	PPL-BN	OX	Breccia	limonitic, argillic	12	82.5
510501	Outcrop	187,965	37,992	93.2	PPL-BN	OX	Breccia	limonitic, argillic	12	91.3
510502	Outcrop	187,970	37,913	117.2	OR-BN	OX	Breccia	limonitic, argillic	6	214
510503	Outcrop	187,982	37,873	125.4	OR-BN	OX	Breccia	limonitic, argillic	4	134
510504	Outcrop	188,071	38,222	26.9	GRY-BN	OX	Andesite	phyllic, 1 % pyrite	25	364
510505	Outcrop	188,084	38,220	28.3	OR-BN	OX	Breccia	silicified, 1-2 % pyrite	1	176
510506	Outcrop	188,084	38,238	24.6	OR-BN	OX	Breccia	silicified, 1-2 % pyrite	9	157
510507	Outcrop	188,104	38,251	23.8	OR-BN	OX	Breccia	silicified, 1-2 % pyrite	12	132
510508	Outcrop	188,101	38,280	30.0	OR-BN	OX	Breccia	silicified, 1-2 % pyrite	3	159

Table 2 cont: Rock chip assay results, Southwest Tatau Island (EL609), Papua New Guinea.

Sample ID	Type	North (m)	East (m)	RL (m)	Colour	Oxidation	Lithology	Alteration	Au ppb	Cu ppm
510509	Outcrop	188,127	38,281	20.6	OR-BN	OX	Breccia	silicified, 1-2 % pyrite	4	191
510510	Outcrop	188,149	38,297	21.1	OR-BN	OX	Andesite	phyllic	1	178
510511	Outcrop	188,176	38,323	19.7	OR-BN	OX	Andesite	phyllic	<1	195
510512	Outcrop	188,189	38,340	19.3	GRY-GN	TR	Breccia	phyllic	24	265
510513	Outcrop	188,164	38,436	17.9	GRY-GN	TR	Breccia	phyllic	6	268
510514	Outcrop	188,234	38,468	23.2	OR-BN	OX	Andesite	phyllic	5	59.2
510515	Outcrop	188,251	38,454	24.5	OR-BN	OX	Andesite	phyllic	2	250
510516	Outcrop	188,262	38,444	27.1	OR-BN	OX	Andesite	phyllic	3	118
510517	Outcrop	188,155	38,443	17.2	OR-BN	OX	Andesite	phyllic	5	165
510518	Outcrop	188,127	38,505	14.2	OR-BN	OX	Breccia	limonitic	9	198
510519	Outcrop	188,596	39,219	4.9	OR-BN	OX	Andesite	propylitic	74	141
510520	Outcrop	188,587	39,213	4.8	OR-BN	OX	Andesite	propylitic	55	142
510521	Outcrop	188,576	39,206	5.4	OR-BN	OX	Andesite	propylitic	96	128
510522	Outcrop	189,415	35,859	18.8	OR-BN	OX	Breccia	limonitic	535	149
510523	Outcrop	189,352	35,890	30.3	OR-BN	OX	Breccia	limonitic	280	102
510524	Outcrop	189,351	35,897	28.6	GRY	SU	Andesite	silicified, 1% pyrite	1	106
510525	Outcrop	189,368	35,918	28.7	GRY	SU	Andesite	silicified, 2-3 % pyrite	52	90.9
510526	**Outcrop**	**189,352**	**35,956**	**31.7**	**GRY-BN**	**OX**	**Andesite**	**phyllic**	**1,200**	**106**
510527	Outcrop	189,359	35,972	31.3	GRY-BN	OX	Andesite	phyllic	310	87.6
510528	**Outcrop**	**189,372**	**35,971**	**29.6**	**WHT**	**TR**	**Quartz vein**	**quartz vein 2% pyrite**	**1,220**	**147**
510529	Outcrop	189,371	35,990	35.7	GRY-BN	OX	Andesite	phyllic	36	69.6
510530	Outcrop	189,371	36,042	47.8	GRY	OX	Andesite	phyllic	8	94.2
510531	**Outcrop**	**189,350**	**36,031**	**49.8**	**GRY**	**OX**	**Andesite**	**silicified**	**1,220**	**105**
510532	Outcrop	189,359	35,911	23.3	GRY	TR	Andesite	phyllic, 2-3 % pyrite	434	60.1
510533	Outcrop	188,784	36,188	149.9	GRY	TR	Andesite	phyllic, 2 % pyrite	18	146
510534	Outcrop	188,773	36,205	154.2	GRY	TR	Andesite	phyllic	16	158
510535	Outcrop	188,880	36,210	149.2	GRY	TR	Andesite	phyllic, 2-3 % pyrite	888	327
510536	Outcrop	188,886	36,198	148.7	GRY	TR	Andesite	propylitic	38	186
510537	Outcrop	188,909	36,215	148.7	GRY	TR	Andesite	phyllic	576	240
510538	Outcrop	188,898	36,231	149.2	GRY-GN	TR	Breccia	argillic, 2-3 % pyrite	19	186
510539	Outcrop	188,889	36,221	153.1	GRY-GN	TR	Breccia	argillic, 1-2 % pyrite	18	167
510540	**Outcrop**	**189,404**	**35,767**	**57.1**	**GRY**	**TR**	**Quartz vein**	**comb texture**	**12,300**	**117**
510541	Outcrop	189,315	36,064	54.0	GRY-BN	OX	Andesite	phyllic, 2 % pyrite	106	106
510542	Outcrop	189,305	36,086	55.4	GRY	TR	Andesite	fault, 2-3 % pyrite	483	235
510543	Outcrop	189,297	36,112	61.1	GRY	OX	Andesite	propylitic	65	128
510544	Outcrop	189,300	36,130	70.4	GRY-GN	TR	Breccia	argillic, 2-3 % pyrite	354	218
510545	Outcrop	189,272	36,138	68.8	GRY-GN	TR	Breccia	argillic, 2-3 % pyrite	21	97
510546	Outcrop	189,270	36,138	70.2	GRY	TR	Andesite	phyllic, 2 % pyrite	15	67.4
510547	Outcrop	189,284	36,168	83.0	GRY-BN	OX	Breccia	argillic	62	192
510548	Outcrop	189,358	35,971	31.8	GRY-BN	OX	Breccia	argillic	36	100
510549	Outcrop	189,337	35,988	39.3	GRY	OX	Andesite	phyllic	203	140
510550	Outcrop	189,339	36,001	49.4	BRN	OX	Andesite	phyllic	50	124
510552	Outcrop	189,374	36,061	52.8	GRY	TR	Andesite	phyllic, 2-3 % pyrite	146	117
510553	Outcrop	189,375	36,217	77.9	GRY	TR	Andesite	phyllic, 2-3 % pyrite	985	183
510554	Outcrop	189,366	36,223	74.8	GRY	TR	Andesite	phyllic, 2-3 % pyrite	234	84
510555	Outcrop	189,364	36,204	71.3	GRY	TR	Andesite	phyllic, 2-3 % pyrite	30	161
510556	Outcrop	189,336	36,236	83.4	GRY	TR	Andesite	phyllic, 2-3 % pyrite	142	209
510557	Outcrop	189,339	36,257	81.9	GRY-GN	TR	Breccia	phyllic, 2-3 % pyrite	373	77
510558	Outcrop	189,328	36,273	88.7	GRY	TR	Andesite	phyllic, 2-3 % pyrite	389	253
510559	Outcrop	189,328	36,303	99.5	GRY	TR	Andesite	phyllic, 2-3 % pyrite	625	127
510560	Outcrop	189,332	36,330	120.0	GRY-GN	TR	Breccia	phyllic, 2-3 % pyrite	160	116
510561	Outcrop	189,361	36,331	127.6	GRY-GN	TR	Breccia	phyllic, 2-3 % pyrite	20	156
510562	Outcrop	189,789	35,773	8.8	GRY-GN	TR	Breccia	phyllic, 2-3 % pyrite	27	86.7
510563	Outcrop	189,742	35,935	15.5	GRY-BN	OX	Breccia	phyllic	151	107
510564	Outcrop	189,702	35,968	18.2	GRY-GN	TR	Breccia	phyllic, 2 % pyrite	107	106

Table 2 cont: Rock chip assay results, Southwest Tatau Island (EL609), Papua New Guinea.

Sample ID	Type	North (m)	East (m)	RL (m)	Colour	Oxidation	Lithology	Alteration	Au ppb	Cu ppm
510565	Outcrop	189,711	36,055	24.4	GRY	TR	Breccia	silicified, 1% pyrite	79	96
510566	Outcrop	189,702	36,079	25.0	GRY-GN	TR	Breccia	phyllic, 3 % pyrite	4	225
510567	Outcrop	189,693	36,105	25.3	GRY-GN	TR	Breccia	phyllic, 1-2 % pyrite	50	113
510568	Outcrop	189,678	36,102	31.2	GRY-GN	TR	Breccia	phyllic, 1-2 % pyrite	176	248
510569	**Outcrop**	**189,681**	**36,096**	**31.9**	**GRY-GN**	**TR**	**Breccia**	**phyllic, 1-2 % pyrite**	**2,000**	**211**
510570	Outcrop	189,658	36,099	36.7	GRY-GN	TR	Breccia	phyllic, 1-2 % pyrite	79	76.6
510571	Outcrop	189,637	36,108	34.5	GRY-GN	TR	Breccia	phyllic, 1-2 % pyrite	99	92.5
510572	Outcrop	189,639	36,107	33.4	GRY-GN	TR	Breccia	phyllic, 1-2 % pyrite	178	17.8
510573	**Outcrop**	**189,638**	**36,107**	**33.4**	**GRY**	**TR**	**Breccia**	**silicified, 1 % pyrite**	**22,500**	**39.2**
510574	Outcrop	189,608	36,109	43.7	GRY	TR	Breccia	silicified, 1 % pyrite	36	126
510575	Outcrop	189,563	36,194	71.9	GRY-GN	TR	Breccia	phyllic, 1 % pyrite	2	133
510576	Outcrop	189,556	36,250	78.4	GRY-BN	OX	Breccia	moderate argillic	40	93.6
510577	Outcrop	189,772	35,857	10.3	GRY	TR	Andesite	silicified, 1-2 % pyrite	15	188
510578	Outcrop	189,784	35,874	18.6	GRY	TR	Breccia	silicified, <1 % pyrite	531	32.9
510579	Outcrop	189,792	35,875	15.7	GRY	TR	Breccia	silicified, <1 % pyrite	74	98.7
510580	Outcrop	189,786	35,888	20.5	GRY	TR	Breccia	silicified, <1 % pyrite	753	23.8
510581	Outcrop	189,810	35,916	21.6	GRY	TR	Breccia	silicified, <1 % pyrite	96	14.8
510582	Outcrop	189,792	35,925	14.4	GRY	TR	Andesite	silicified, 1-2 % pyrite	73	13
510583	Outcrop	189,813	35,934	16.7	WHT	TR	Quartz vein	quartz vein	11	21
510584	Outcrop	189,815	35,946	19.0	GRY	TR	Andesite	silicified, 1-2 % pyrite	4	169
510585	**Outcrop**	**189,815**	**35,948**	**19.0**	**GRY-BN**	**OX**	**Breccia**	**silicified**	**1,980**	**63.3**
510586	Outcrop	189,820	35,948	22.1	GRY-GN	TR	Breccia	phyllic, 1-2 % pyrite	31	255
510587	Outcrop	189,830	35,970	24.8	GRY-GN	TR	Breccia	phyllic, 1-2 % pyrite	14	468
510588	Outcrop	189,826	35,967	23.9	GRY-GN	TR	Breccia	phyllic, 1-2 % pyrite	32	433
510589	Outcrop	189,836	35,999	34.6	GRY-BN	OX	Andesite	propylitic	38	295
510590	Outcrop	189,859	35,992	33.8	GRY-GN	TR	Breccia	phyllic, 1-2 % pyrite	28	236
510591	Outcrop	189,886	35,992	33.8	GRY-GN	TR	Breccia	phyllic, 1-2 % pyrite	19	229
510592	Outcrop	189,900	35,992	35.4	GRY-BN	OX	Andesite	propylitic	31	115
510593	Outcrop	189,920	35,990	39.9	GRY-BN	OX	Andesite	silicified, 3-5 % pyrite	64	167
510594	Outcrop	189,934	35,993	43.4	GRY-BN	OX	Andesite	silicified, 3-5 % pyrite	26	82.7
510595	Outcrop	189,946	36,008	57.6	GRY-BN	OX	Andesite	silicified, 3-5 % pyrite	104	68.8
510596	Outcrop	189,992	35,999	69.7	GRY-BN	OX	Andesite	limonitic	42	130
510597	Outcrop	189,991	36,001	69.4	GRY-BN	OX	Andesite	limonitic	21	242
510598	**Outcrop**	**189,844**	**35,983**	**27.3**	**GRY-BN**	**OX**	**Andesite**	**limonitic**	**1,830**	**325**
510599	Outcrop	189,857	35,999	38.8	GRY	TR	Breccia/Andesite	silicified, 3-5 % pyrite	23	236
510601	Outcrop	189,869	36,024	49.4	GRY	TR	Breccia/Andesite	silicified, 3-5 % pyrite	203	123
510602	Outcrop	189,884	36,046	44.2	GRY	TR	Breccia/Andesite	silicified, 3-5 % pyrite	628	389
510603	Outcrop	189,910	36,033	41.5	GRY	TR	Breccia/Andesite	silicified, 3-5 % pyrite	18	188
510604	Outcrop	189,280	36,164	76.5	GRY	TR	Breccia/Andesite	silicified, 3-5 % pyrite	128	157
510605	Outcrop	189,278	36,192	85.0	GRY-GN	TR	Andesite	propylitic, 1 % pyrite	109	139
510606	Outcrop	189,293	36,232	89.6	GRY-GN	TR	Andesite	propylitic, 1 % pyrite	58	140
510607	Outcrop	189,301	36,273	101.2	GRY-GN	TR	Andesite	propylitic, 1 % pyrite	8	139
510608	Outcrop	189,249	36,314	118.3	GRY	TR	Breccia/Andesite	silicified, 1-2 % pyrite	285	175
510609	Outcrop	189,224	36,350	126.7	BRN	OX	Andesite	argillic	112	138
510610	Outcrop	189,875	35,801	27.3	GRY	OX	Andesite	phyllic	328	183
510611	Outcrop	189,836	35,837	23.8	GRY	OX	Andesite	phyllic	417	86.6
510612	Outcrop	189,866	35,820	15.9	GRY	TR	Andesite	silicified, 1-2 % pyrite	22	98.2
510613	Outcrop	189,876	35,821	17.1	GRY	TR	Andesite	silicified, 1-2 % pyrite	6	175
510614	Outcrop	189,893	35,809	24.9	GRY-BN	OX	Andesite	silicified, 1-2 % pyrite	9	146
510615	Outcrop	189,894	35,809	24.9	GRY	TR	Andesite	phyllic, 2-3 % pyrite	8	116
510616	Outcrop	189,901	35,810	26.9	GRY	TR	Breccia	silicified, 5-6 % pyrite	21	293
510617	Outcrop	189,924	35,814	34.4	GRY	TR	Breccia	silicified, 5-6 % pyrite	39	146
510618	Outcrop	189,934	35,819	38.5	GRY	TR	Breccia	silicified, 2-3 % pyrite	17	462
510619	Outcrop	189,943	35,814	36.2	GRY	TR	Breccia	silicified, 2-3 % pyrite	11	126
510620	Outcrop	189,947	35,820	43.0	GRY	TR	Breccia	silicified, 2-3 % pyrite	<1	97.8

Table 2 cont: Rock chip assay results, Southwest Tatau Island (EL609), Papua New Guinea.

Sample ID	Type	North (m)	East (m)	RL (m)	Colour	Oxidation	Lithology	Alteration	Au ppb	Cu ppm
510621	Outcrop	189,861	35,812	20.2	GRY	TR	Breccia	silicified, 2-3 % pyrite	<1	144
510622	Outcrop	189,607	35,718	12.2	GRY	TR	Breccia	silicified, 2-3 % pyrite	<1	441
510623	Outcrop	188,998	36,059	105.2	GRY	TR	Breccia	silicified, 2-3 % pyrite	<1	132
510624	Outcrop	189,011	36,045	97.7	GRY	TR	Breccia	silicified, 1-2 % pyrite	<1	101
510625	Outcrop	189,034	36,019	100.7	GRY	TR	Breccia	silicified, 1-2 % pyrite	<1	118
510626	Outcrop	189,049	35,973	82.4	GRY	TR	Breccia	silicified, 1-2 % pyrite	<1	126
510627	Outcrop	189,033	35,971	79.4	GRY	TR	Breccia	silicified, 1-2 % pyrite	<1	196
510628	Outcrop	189,007	35,983	91.4	GRY	TR	Breccia	silicified, 1-2 % pyrite	<1	143
510629	Outcrop	188,974	35,936	89.9	GRY	TR	Breccia	silicified, 1-2 % pyrite	<1	92.8
510630	Outcrop	189,001	35,924	75.7	GRY	TR	Breccia	silicified, 2-3 % pyrite	<1	114
510631	Outcrop	189,022	35,910	66.0	GRY	TR	Breccia	silicified, 1 % pyrite	<1	79.4
510632	Outcrop	189,062	35,869	53.5	GRY	TR	Breccia	silicified, 1 % pyrite	<1	165
510633	Outcrop	189,083	35,847	41.4	GRY	TR	Breccia	silicified, 1 % pyrite	<1	98.4
510634	Outcrop	189,092	35,809	34.0	GRY	TR	Breccia	silicified, 3-5 % pyrite	<1	242
510635	Outcrop	189,094	35,766	28.9	GRY	TR	Breccia	silicified, 3-5 % pyrite	<1	182
510636	Outcrop	189,111	35,724	17.5	GRY	TR	Breccia	silicified, 3-5 % pyrite	<1	212
510637	Outcrop	189,124	35,711	24.6	GRY	TR	Breccia	silicified, 3-5 % pyrite	<1	93.4
510638	Outcrop	189,111	35,672	14.4	GRY	TR	Breccia	phyllic, 1-2 % pyrite	<1	89.6
510639	Outcrop	189,871	35,824	15.7	GRY	TR	Breccia	phyllic, 1-2 % pyrite	<1	160
510640	Outcrop	189,886	35,841	31.5	GRY	TR	Breccia	phyllic, 1-2 % pyrite	<1	121
510641	Outcrop	189,916	35,832	32.5	GRY	TR	Breccia	phyllic, 1-2 % pyrite	<1	104
510642	Outcrop	189,698	36,095	25.2	GRY-BN	OX	Andesite	propylitic	<1	214
510643	Outcrop	189,739	36,079	33.7	GRY-BN	OX	Andesite	propylitic	<1	123
510644	Outcrop	189,766	36,066	40.9	GRY-BN	OX	Andesite	propylitic	<1	177
510645	Outcrop	189,746	36,074	36.8	GRY-BN	OX	Andesite	propylitic	<1	140
510646	Outcrop	189,681	36,178	34.5	GRY-BN	OX	Andesite	propylitic	<1	255
510647	Outcrop	189,676	36,194	32.8	GRY-BN	OX	Andesite	propylitic	<1	153
510648	Outcrop	189,659	36,200	40.3	GRY-BN	OX	Andesite	propylitic	<1	156
510649	Outcrop	189,698	36,095	25.2	GRY-BN	OX	Andesite	propylitic	<1	11.2
510650	Outcrop	190,856	34,917	43.3	GRY	TR	Breccia	phyllic, 1-2 % pyrite	<1	7.5
510652	Outcrop	190,875	34,860	37.4	GRY-BN	OX	Andesite	propylitic	<1	163
510653	Outcrop	190,842	34,854	35.9	GRY-BN	OX	Andesite	propylitic	<1	21.1
510654	Outcrop	190,833	34,787	25.5	GRY	TR	Andesite	propylitic	<1	64.2
510655	Outcrop	190,963	34,464	56.6	GRY	TR	Andesite	propylitic	<1	117
510656	Float	190,996	34,441	51.0	GRY-BN	OX	Andesite	propylitic	<1	142
510657	Float	191,003	34,441	51.4	GRY-BN	OX	Andesite	propylitic	<1	84.4
510658	Float	190,476	34,470	13.6	GRY-BN	OX	Andesite	propylitic	<1	66.6
510659	Float	190,474	34,460	15.4	GRY-BN	OX	Andesite	propylitic	<1	48.1
510660	Float	190,475	34,454	15.0	GRY-BN	OX	Andesite	propylitic	<1	67.6

JORC Table 1 Checklist of Assessment and Reporting Criteria

Soil and Rock Chip Sampling: Section 1 Sampling Techniques and Data – EL609

Criteria	Commentary
Sampling techniques	• Regional hand auger soil samples were collected on a staggered grid initially at 200 m by 200 m spacing. Follow-up infill sampling is usually completed on a 100 m by 100 m grid spacing. Access walking tracks are cleared using machete and sample locations are recorded using a handheld GPS. Some locations are unable to be sampled due to the swampy nature of ground conditions. • A manual hand auger was used to provide a continuous soil profile down to a depth of between 1 and 2.2 m depth (average 1.8 m). The soil profile was photographed and a 0.8 kg to 3.6 kg (average 1.7 kg) sample taken from the upper portion of the 'C' horizon for analysis or lower 'B' horizon when not reached. The whole sample was placed in a calico bag, then air dried, and then placed in a plastic bag to retain all fine material. • Rock chip samples were collected using an Estwing rock pick from available outcrop, sub-crop or proximal float typically located in creeks, cliffs and access tracks. Sample locations are recorded using a handheld GPS. Rock chip samples ranged from 0.1 to 4.9 kg (average 2.8kg) in weight. Samples were placed in calico bags. • Soil and rock chip samples were dispatched to Intertek (Lae) for sample preparation.
Drilling techniques	• No RC or diamond drilling was undertaken and as a result no drilling is being reported. • Hand auger sampling techniques have been described above. • A manual hand auger was used to provide a continuous soil profile down to a depth of between 1 and 2.2 m depth (average 1.8 m). The soil profile was photographed and a 0.8 kg to 3.6 kg (average 1.7 kg) sample taken from the upper portion of the 'C' horizon for analysis. The whole sample was placed in a calico bag, then air dried, and then placed in a plastic bag to retain all fine material.
Drill sample recovery	• No RC or diamond drilling was undertaken and as a result no drilling is being reported. • Hand auger sampling techniques have been described above.
Logging	• All soil samples were qualitatively logged for lithology, weathering and alteration. • All rock chip samples were qualitatively logged for lithology, weathering and alteration. Structural data were also recorded where available. • Photos were taken of the hand auger soil profile on site prior to sample collection.
Sub-sampling techniques and sample preparation	• Sample preparation was completed at the Intertek laboratory in Lae, PNG. • The entire soil samples are dried at <105° in an electric oven and then samples are pulverised to 90% passing 75µm using a LM2 pulveriser (Method PF01). A 150 g pulp sample is sub-split into individual geochem packets, packaged, and air freighted to Intertek's Perth Laboratory for analysis. • The entire rock chip samples underwent drying at <105°C in an electric oven. Samples then pass through a 2-stage crushing process, firstly crushed to ~85% passing 10mm, followed by crushing in a fine crusher to 85% passing 2mm. 2 kg of the crushed material is rotary sub split and then pulverised in a LM5 pulveriser to 90% passing 75µm (Method PB04). A 250 g pulp sample is sub split into a geochem packet for analysis in Lae and a 35g sample is sub split, packaged, and air freighted for multi element analysis to Intertek's Perth Laboratory.
Quality of assay data and laboratory tests	• For soil samples, gold analysis were completed via 50 g Fire Assay / ICP-MS Finish (Method FA50N / MS02) at Intertek's Perth Laboratory. Low level detection multi-element analysis was completed via 0.2 g Four Acid digest and ICP-MS finish for 48 elements (Method 4A / MS48) at Intertek's Perth Laboratory. In addition, ASD analysis was completed via TerraSpec 4 Hi Res scan (Method NIR) followed by TSG Post processing mineralogy report (Method NIR01). • For rock chip samples, gold analysis were completed via 50 g Fire Assay / AAS Finish (Method FA50 / AA) at Intertek's Lae Laboratory. Multi-element analysis was completed via 1 g Aqua Regia Digest and OES and MS finish for 9 elements Ag, As, Cu, Fe, Mo, Pb, S, Sb, Zn (Method AR1 / OM) at Intertek's Perth Laboratory. In addition, ASD analysis was completed via TerraSpec 4 Hi Res scan (Method NIR) followed by TSG Post processing mineralogy report (Method NIR01). • For soil samples, QAQC included the insertion of two in house blanks at the start the batch, the insertion of certified gold standards (1:75) and crush duplicates collected during sample preparation (1:60). St Barbara inserted OREAS standard 252b as matched to material type and grade approximation. • For rock chip samples, QAQC included the insertion of two in house blanks at the start of the batch, the insertion of certified gold standards (1:100) and crush duplicates collected during sample preparation (1:100). St Barbara inserted OREAS standard 252b as matched to material type and grade approximation. • Intertek Laboratory QAQC involved the insertion of Reagent Blanks and Certified Reference Materials (1:25) and analytical pulp duplicates were assayed (1:25). • The Fire Assay gold analysis technique is considered a complete extraction method and the 4 acid multi-element analysis technique is considered near total digestion. The Aqua Regia digestion is considered a partial digestion technique that effectively dissolves metals not tightly bound within silicate structures.
Verification of sampling and assaying	• Sampling data is recorded electronically which ensures only valid non-overlapping data can be recorded. Assay and sample survey data are subsequently merged electronically. All data is stored in a SQL database on secure company server. • No adjustments to assay data have been made.
Location of data points	• All Tatau Island soil and rock chip samples were surveyed by a handheld GPS for easting, northing and elevation. The GPS used the Tabar Island Grid (TIG) which is based on WGS84 ellipsoid.
Data spacing and distribution	• Regional hand auger soil samples were collected on a staggered grid initially at 200 m by 200 m spacing. Follow-up infill sampling is usually completed on a 100 m by 100 m grid spacing. The location of soil sampling was adjusted when sampling was not possible due to swampy ground conditions or proximity to a creek. • Rock chip data spacing is irregular and broad spaced as it is dependent on available outcrop. • No compositing has been applied.

Criteria	Commentary
Orientation of data in relation to geological structure	• The regional hand auger soil sampling was collected on a broad spaced, staggered grid, initially at 200 m by 200 m. The distribution of sampling was not optimised to test for any one specific orientation to mineralisation. The program was designed to provide an understanding of the broad distribution of anomalous gold, copper and other path-finder elements at surface. This would in turn, allow follow-up infill soil sampling, trenching and drilling to test for a better understanding of the orientation to mineralisation. • Due to the extensive soil cover, the orientation to mineralisation is poorly understood.
Sample security	• Only trained company personnel were allowed to collect the samples. All samples were held within a secure company building before dispatch. The samples were prepared on site at the sample preparation facility. • Samples were submitted to Intertek in Lae (PNG) where samples were prepared and pulps air freighted to Intertek in Perth for analysis.
Audits or reviews	• No audits or reviews of sampling protocols have been completed.

Soil and Rock Chip Sampling: Section 2 Reporting of Exploration Results – EL609

Criteria	Commentary
Mineral tenement and land tenure status	• SBM has 100 % ownership of the three tenements over the Simberi Islands; ML136 on Simberi Island, EL609 which covers the remaining area of Simberi Island, as well as Tatau Island and Big Tabar Island and 4 sub-block EL2462 which covers part of Tatau and Mapua Islands.
Exploration done by other parties	• CRA, BHP, Tabar JV (Kennecott, Nord Australex and Niugini Mining), Nord Pacific, Barrick and Allied Gold have all previously worked in this area. Nord Pacific followed by Allied Gold was instrumental in the discovery and delineation of the 5 main oxide and sulphide deposits at Simberi. • St Barbara has undertaken exploration on the tenements since acquisition from Allied Gold in September 2012. • St Barbara (through its wholly owned PNG subsidiary Nord Australex Nominees (PNG) Ltd) had an Option and Farm-In Agreement with Newcrest PNG Exploration Limited (a wholly owned subsidiary of Newcrest Mining Limited) between 2016 and 2019. During this time, exploration was conducted for Cu-Au porphyry deposits on tenements EL609 and EL2462 covering Tatau and Big Tabar Islands.
Geology	• The Tabar group of islands is located in the New Ireland Province, Papua New Guinea. The Tabar-Feni island chain comprises a series of Pliocene to Recent volcanoes that occupy a fore-arc position in the New Ireland Basin, part of the Bismarck archipelago. Volcanism in the area began about 3.7 Ma ago, coeval with the initiation of back-arc spreading in the Manus basin. Volcanism in the Bismarck archipelago is dominantly calc-alkaline to high K calc-alkaline generated as a result of stalled subduction and partial melting of the Pacific plate beneath the Indo-Australian plate along the Manus-Kilinailau trench. • The Simberi gold deposits are low sulphidation, intrusion related adularia-sericite epithermal gold deposits. The dominant host rocks for mineralisation are andesites, volcaniclastics and lesser porphyries. Gold mineralisation is generally associated with sulphides or iron oxides occurring within a variety of fractures, such as simple fracture in-fills, single vein coatings and crackle brecciation in the more competent andesite units, along andesite/polymict breccia contact margins as well as sulphide disseminations. On Tatau and Big Tabar Islands, located immediately south of Simberi, potential also exists for porphyry Cu-Au, epithermal quartz Au-Ag and carbonate-base metal Au mineralisation.
Drill hole information	• No RC or diamond drilling was undertaken and as a result no drilling is being reported.
Soil and Rock chip Information	• Included in the report text and annotated on diagrams. • A table is provided listing all soil and rock chip samples, their location (easting, northing and elevation) in Tabar Island Grid (TIG), brief description, as well as gold and copper assay results.
Data aggregation methods	• All results have been reported. • No top-cutting has been applied. • No weighted averages or assumptions on metal equivalents have been made.
Relationship between mineralisation widths and intercept lengths	• No RC or diamond drilling was undertaken and as a result no drilling is being reported.
Diagrams	• Included in the body of the report. • Coloured thematic base maps were produced in Micromine software using an Inverse distance weighted interpolation to produce a gridded colour map of soil assay values. Computed Grid cells are 40m x 40m in size with a maximum search radius of 175m and minimum samples n=1, maximum n=150.
Balanced reporting	• Figures when included show all sample sites material and immaterial to Exploration Results. • All gold and copper results have been reported.
Other substantive exploration data	• Included in the body of the report.
Further work	• Included in the body of the report. • Assay results are pending for 22 trenches covering 1,483 m and 17 reconnaissance RC drill holes for 1,020 m completed in southwest Tatau Island. • Extension and infill hand auger soil sampling will be conducted in some areas returning ≥0.1 ppm Au. This includes the Mt Tiro area where the g • Further trenching and scout RC drilling will be conducted once all the assay results have been returned from the programs described above.